

Fig. 1

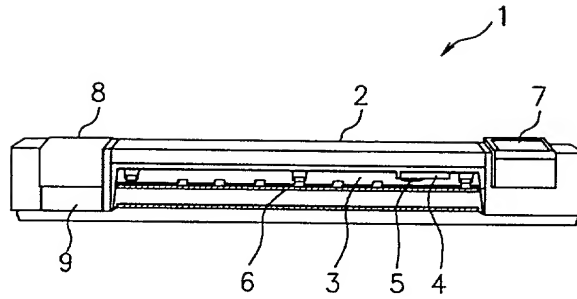
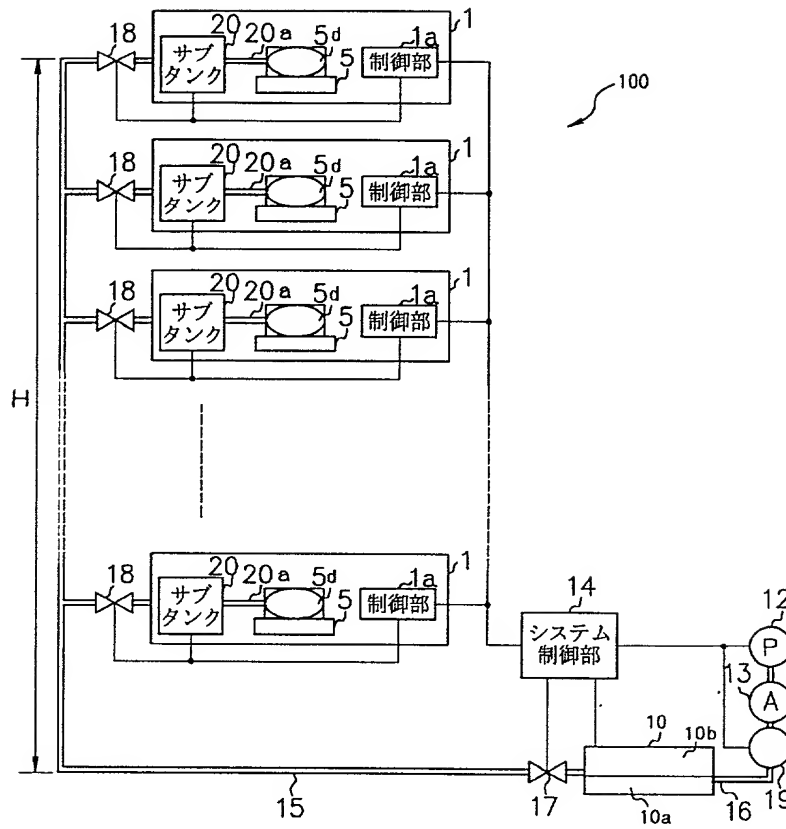


Fig. 2



12: controller
 14: system controller
 20: subtank

Fig. 3

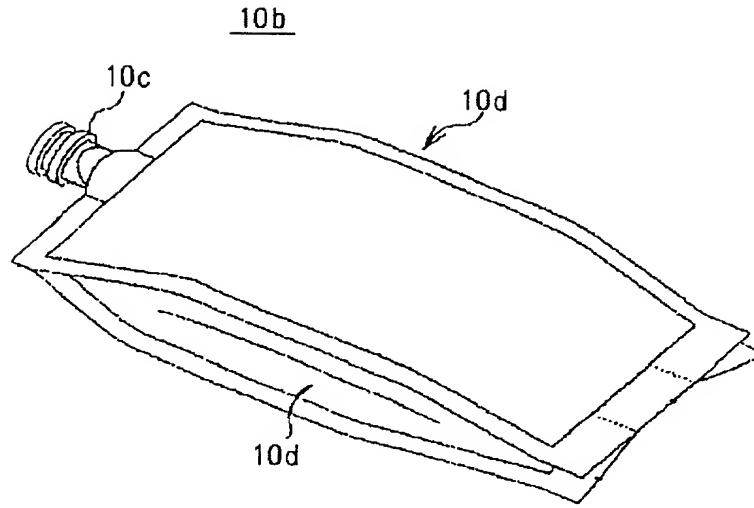


Fig. 4A

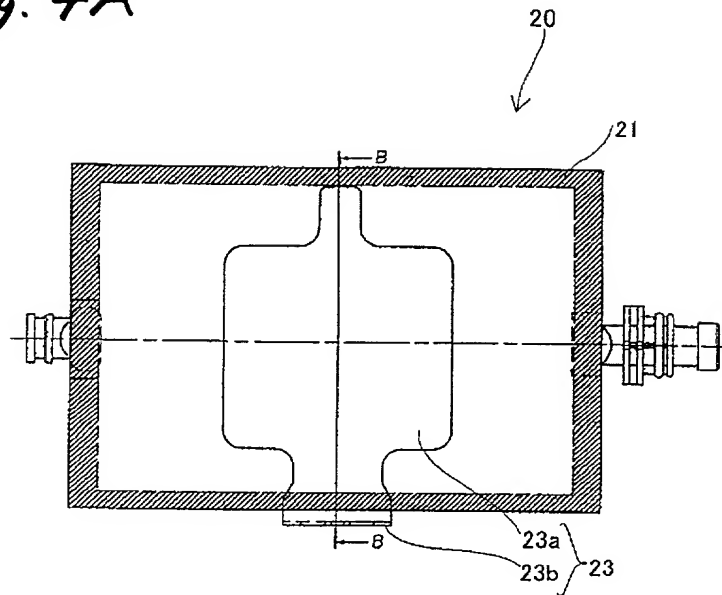


Fig. 4B

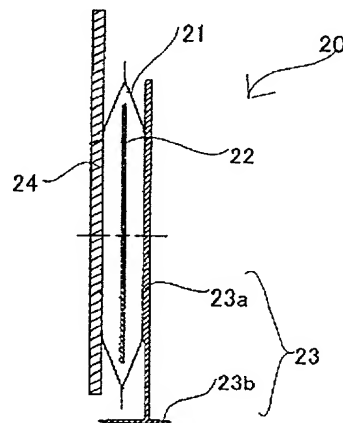


Fig. 5

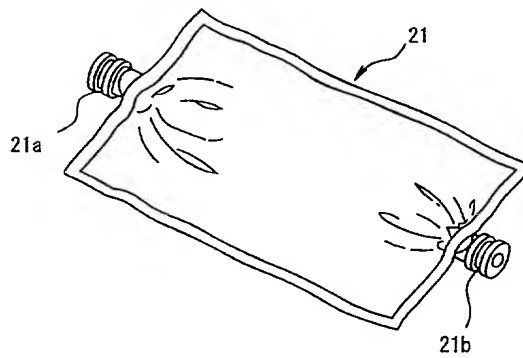


Fig. 6A

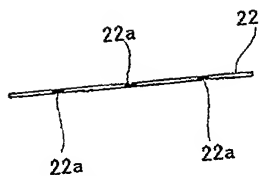


Fig. 6B

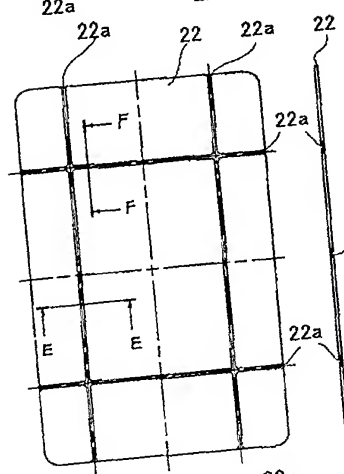


Fig. 6C



Fig. 6D

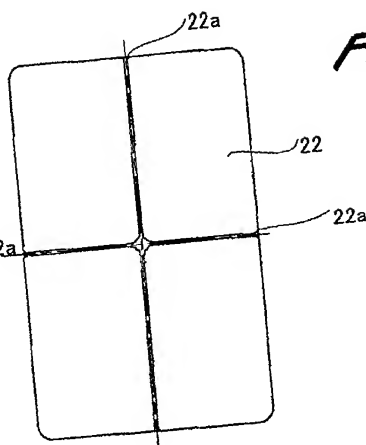


Fig. 6E



Fig. 6F

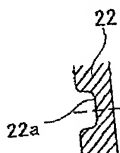


Fig. 7A

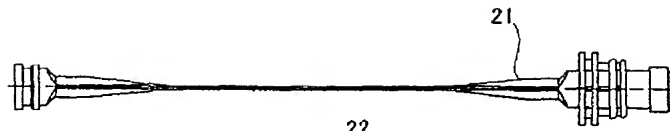


Fig. 7B

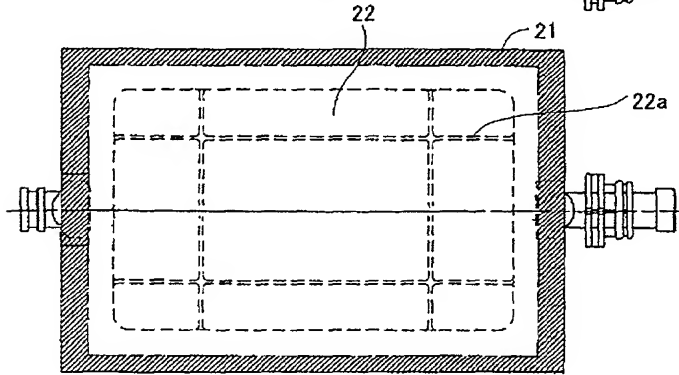


Fig. 8A

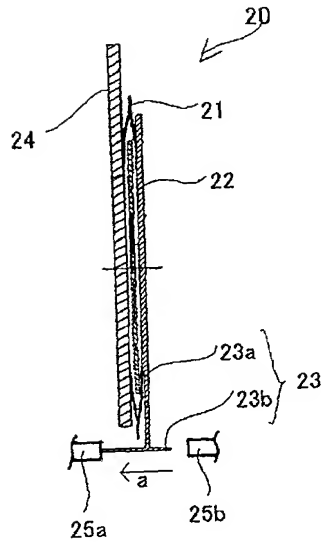


Fig. 8B

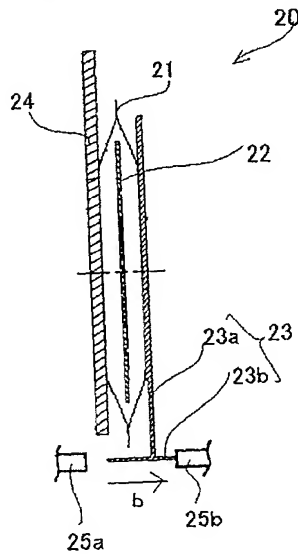


Fig. 9A



Fig. 9B

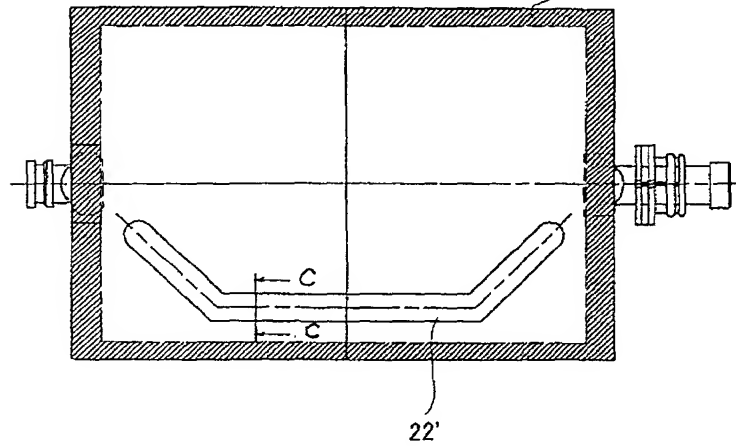


Fig. 9C

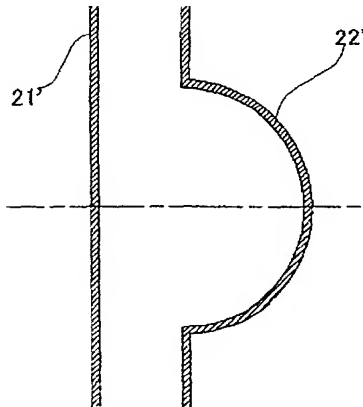
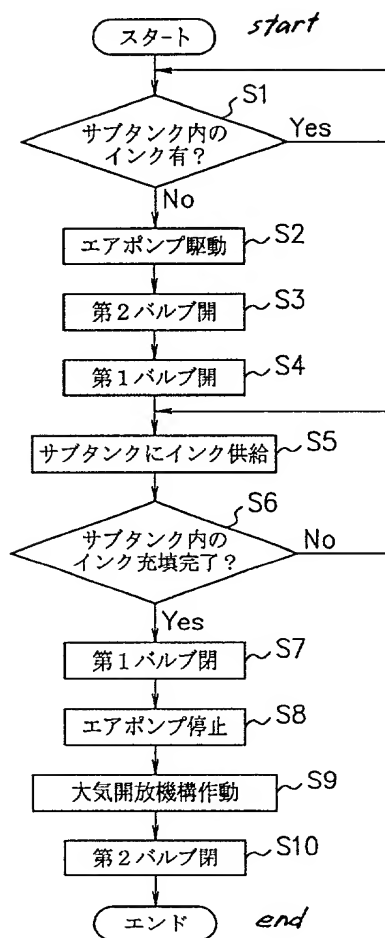
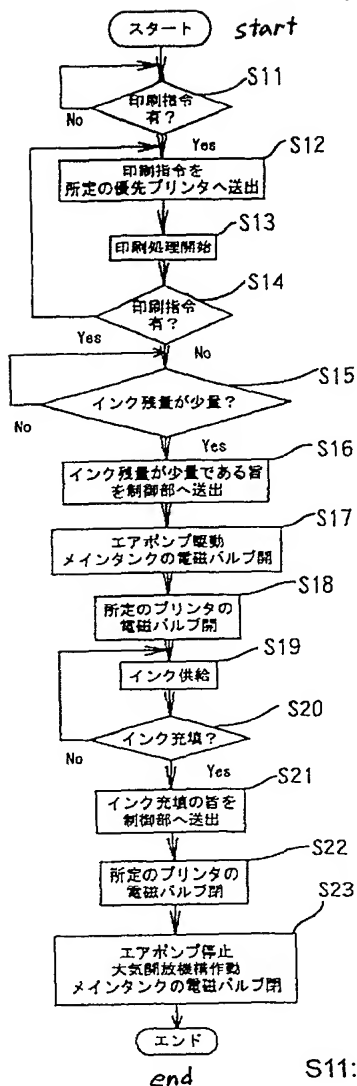


Fig. 10



- S1: ink is left in subtank?
- S2: drive air pump
- S3: open main valve
- S4: open subvalve
- S5: supply ink to subtank
- S6: ink replenishment to subtank is completed?
- S7: close subvalve
- S8: stop air pump
- S9: activate air releaser
- S10: close main valve

Fig. 11



- S11: print command is received?
 S12: send print command to predetermined priority printer
 S13: start print processing
 S14: print command is received?
 S15: ink low state?
 S16: notify ink low state to controller
 S17: drive air pump
 open main valve
 S18: open subvalve of priority printer
 S19: supply ink to subtank of priority printer
 S20: ink replenishment is completed?
 S21: notify replenishment completion to controller
 S22: close subvalve of priority printer
 S23: stop air pump
 activate air releaser
 close main valve

Fig. 12

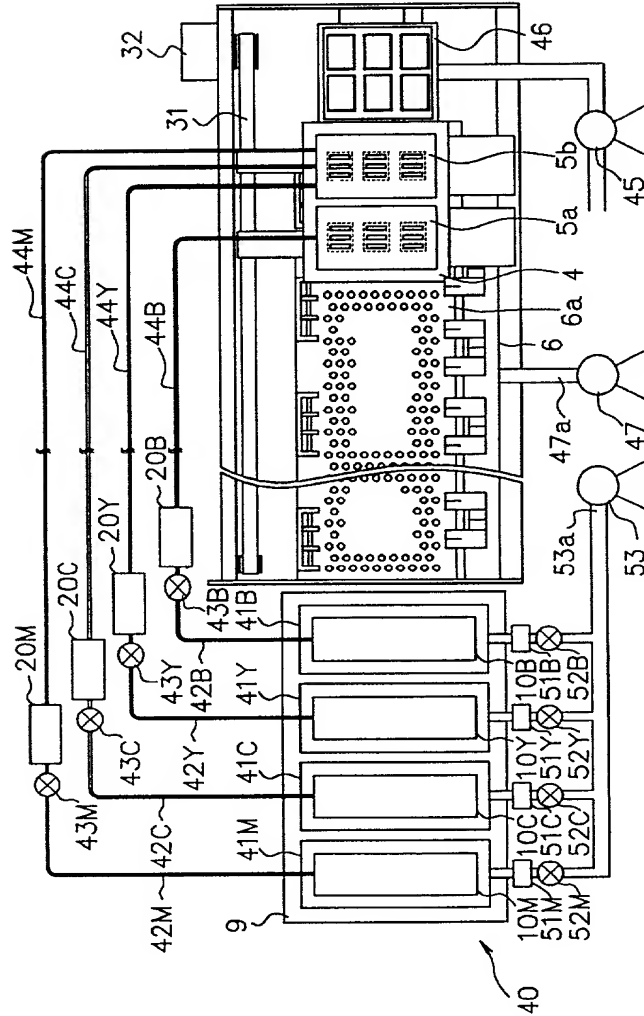


Fig. 13

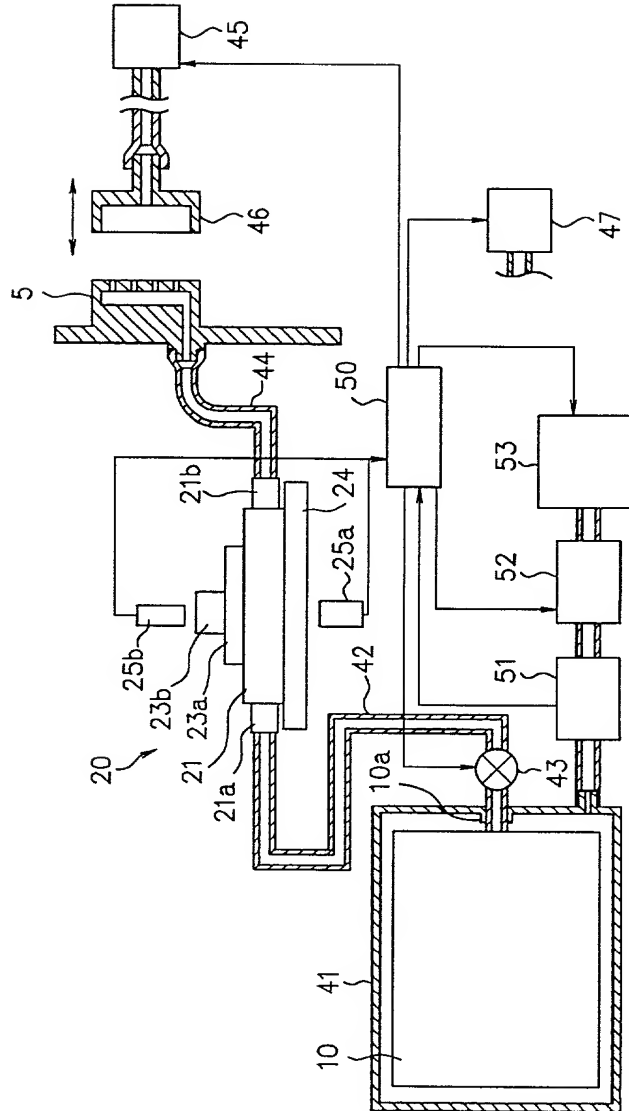
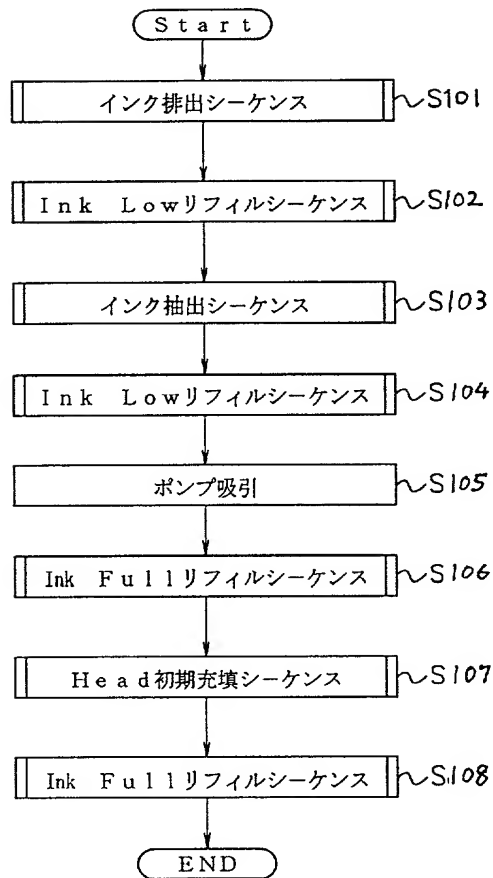
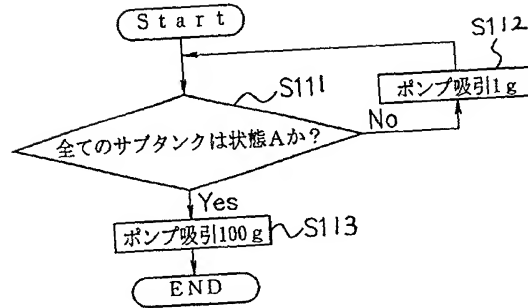


Fig. 14



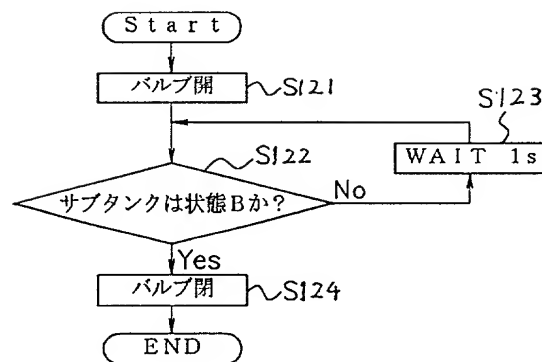
- S101: exhausting sequence
S102: refilling sequence (ink low state)
S103: exhausting sequence
S104: refilling sequence (ink low state)
S105: ink suction
S106: refilling sequence (ink full state)
S107: initial filling sequence for head
S108: refilling sequence (ink full state)

Fig. 15



S111: all sub tanks are in ink low state?
S112: ink suction (1g)
S113: ink suction (100g)

Fig. 16



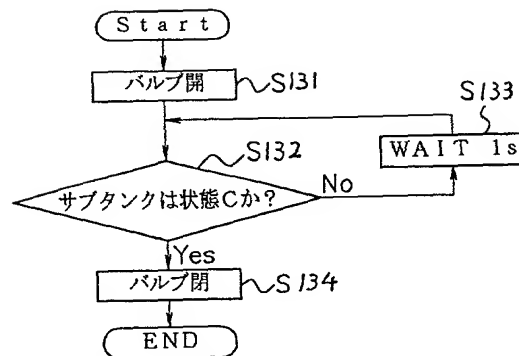
S121: open valve

S122: subtank is in intermediate state?

S123: wait 1sec

S124: close valve

Fig. 17



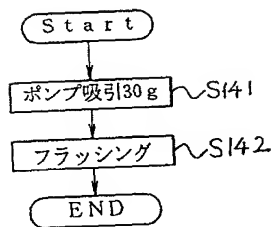
S131: open valve

S132: subtank is in ink full state?

S133: wait 1 sec

S134: close valve

Fig. 18



S141: ink suction (30g)

S142: flushing

Fig. 19

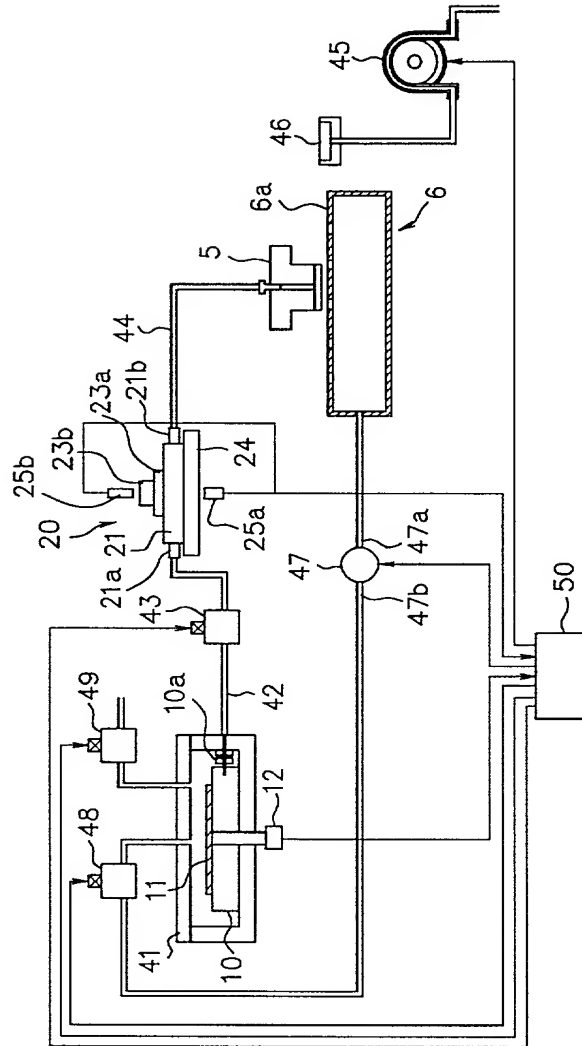
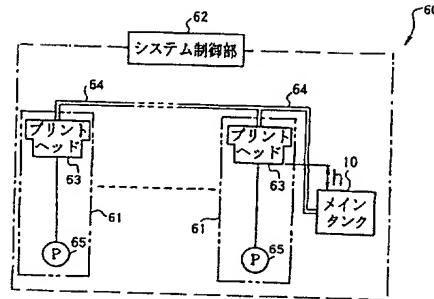


Fig. 20



10: main tank
 62: system controller
 63: recording head

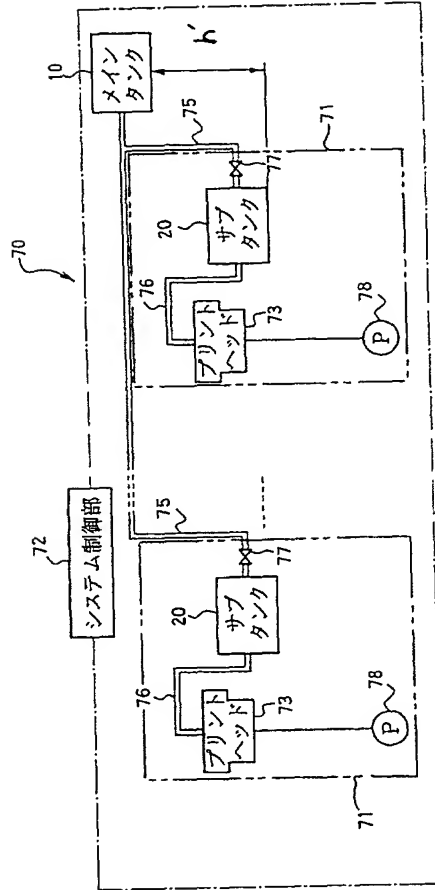
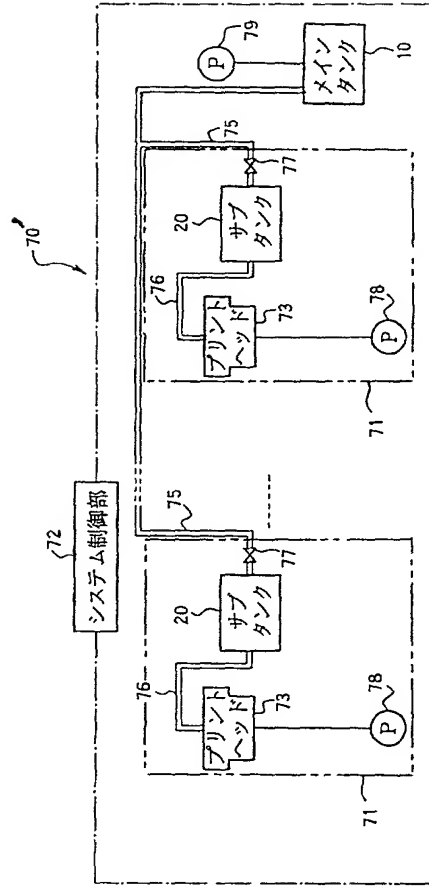


Fig. 21

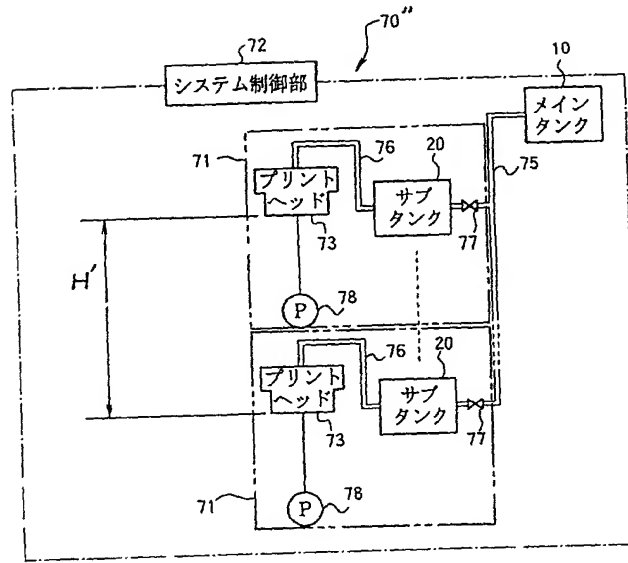
- 10: main tank
- 20: sub tank
- 72: system controller
- 76: recording head

Fig. 22



- 10: main tank
- 20: sub tank
- 72: system controller
- 73: recording head

Fig. 23



- 10: main tank
- 20: subtank
- 72: system controller
- 73: recording head